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SERIAL NO. 10/655,345

Form PTO-1449 (modified)
List of Patents and Publications
For Applicant's Information
Disclosure Statement
(Use several sheets if necessary)

AT Y. DKT. NO. RACT-00200

APPLICANT: McDaniel

GROUP: 1645

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		U	I.S. PATENT	DOCUMENTS					
EXAM. INITIALS	REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE		
•• .		US 2002/0106361 A1	8/8/2002	Composition	424/94 .4		11/30/2001		
OIP E	76	5,482,996	1/9/1996	Protein Containing polymers and a method of synthesis of protein-containing polymers in organic solvents			12/8/1993		
HOV 2	E SALVES	5,484,728	1/16/1996	Parathion hydrolase analogs and methods for production and purification	435/19 6		11/1/1994		
		5,589,386	12/31/1996	Hydrolysis of cholinesterase inhibitors using parathion hydrolase	435/26 2.5	·	2/17/1989		
		5,928,927	7/27/1999	Enzymatic detoxification or organophosphorus compounds	435/19 6		2/6/1997		
		6,291,260	9/8/2001	Enzyme-containing polymeric sensors	435/20		11/17/1999		
		OTHER ART (Inc	luding Author	, Title, Date, Pertinent Pag	es, Etc	.)			
95	1			urface Coatings, Theory and F 5, 494-497, 533, 541-547, 700		, 2 nd Ed, 19	99. 2-3, 10,		
¥	7	DREVON G. et al. High-Activity Enzyme Polyurethane Coatings, <i>Biotechnology and Bioengineering</i> 2002, Vol. 79, No. 7, 785-794.							
	3	DEFRANK, J. et al. Advanced Catalystic Enzyme System (ACES)- Dual Use Capabilities. U.S. Army Edgewood Chemical Biological Center Aberdeen Proving Grounds.							
	41	Paint Research Association Emulsion Polymer Technologies. April 2002. http://www.pra.org.gt.hubications/emulsion/emulsionhighlights-2002.htm.							
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045	6-	"Reactive Coatings Literature Review" Department of Commerce National Technical Information Service, 2002.							
95	F	CALBO, L. Handbook of Coatings Additives. 43-63, 177-224. 1987. New York: Marcel Dekker, Inc.							
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<u></u>	n/	STOYE, D. et al. Paints, Coatings, and Solvents, Second Completely Revised edition. 6, 12-19, 127,							

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165, 288-290. 1998. Weinheim: Wiley-Vch

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SKS	RAININA, E. et al. The development of a new biosensor based on recombinant E. coli for the dire detection of organophosphorus neurotoxins. <i>Biosensors & Bioelectronics 11, (10).</i> 991-1000. 199								
	2	GABERLEIN, S. et al. Microbial and cytoplasmic membrane-based potentiometric biosensors for direct determination organophosphorus insecticides. <i>Applied Microbiology and biotechnology</i> , 54, (5), 652-658, 2000.							
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4	8	HONG, M. et al. Neurotoxic Organophosphate Degradation with Polyvinyl Alcohol Gel-Immobilized Microbial Cells," <i>Bioremediation Journal</i> 2, No. 2,145-157. 1998.							
	EFREMENKO, E. et al. Addition of Polybrene improves stability of organophosphate hydrolase immobilized in poly(vinyl alcohol) cryogel carrier. <i>J. Biochem. Biophys Methods</i> 51, No. 2, 195-201 2002.								
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Form PTO-1449 (modified ATTY, DKT, NO. RACT-00200 SERIAL NO. 10/655.345 List of Patents and Publications ARPLICANT: McDaniel **GROUP: 1645** For Applicant's Information Use several sheets if necessary) W F. ING DATE: September 4, 2003 U.S.PATENT DOCUMENTS DOCUMENT NUMBER CLASS SUB FILING DATE IF DATE NAME REF. EXAM. APPROPRIATE **CLASS** DES. **INITIALS** OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) LEJEUNE, K. et al. Covalent binding of a nerve agent hydrolyzing enzyme within polyurethane foams. Biotechnology and Bioengineering 51 (4), 450-457. 1996. ŁEJEUNE, K. et al. Dramatically stabilized phosphotriesterase-polymers for nerve agent degradation. Biotechnology and Bioengineering 54(2), 105-114. 1997. LEJEUNE, K. et al. Increasing the Tolerance of Organophosphorus Hydrolase to Bleach. Biotechnology and Bioengineering 64(2):250-254, 1999. HÁVENS, P. et al. Reusable Immobilized Enzyme/Polyurethane Sponge for Removal and Detoxification of Localized Organophosphate Pesticide Spills. Ind. Eng. Chem. Res. 32, 2254-2258. 1993. GORDON, R. et al. Organophosphate Skin decontamination using immobilized enzymes Chemico-Biological Interactions 119-120:463-470, 1999. MUNNECKE, D. et al. Hydrolysis of Organophosphate Insecticides by an Immobilized-Enzyme System. Biotechnology Bioengineering, 21. 2247-2261. 1979. MUNNECKE, D. Detoxification of pesticides using soluble or immobilized enzymes. Process Biochemistry. 14-16-1978. MULCHANDANI, P. et al. Biosensor for direct determination of organophosphate nerve agents. 1. Potentiometric enzyme electrode. Biosensors & Bioelectronics 14, 77-85. 1999. MULCHANDANI, A, et al. Fiber-optic enzyme biosensor for direct determination of organophosphate nerve agents. Biotechnology Progress 15. 130-134. 1999. MULCHANDANI, P. et al. A. Flow injection amperometric enzyme biosensor for direct determination of organophosphate nerve agents. Environmental Science Technology. 35, 2562-2565. 2001. SINGH, A. et al. Development of sensors for direct detection of organophosphates. Part I: /immobilization, characterization and stabilization of acetylcholinesterase and organophosphate hydrolase on silica supports". Biosensors & Bioelectronics 14, 703-713. 1999. ROGERS, K. et al. Organophosphorus hydrolase-based assay for organophosphate pesticides. Biotechnology Progress 15, 517-521. 1999. GABERLEIN S. et al. Disposable potentiometric enzyme sensor for direct determination of organophosphorus insecticides. Analyst 125, No. 12. 2274-2279. 2000. WANG, J. et al. Orientation specific immobilization of organophosphorus hydrolase on magnetic particles through gene fusion. Biomacromolecules 2, 700-705. 2001. MULCHANDANI, P. et al. Biosensors for direct determination of organophosphate pesticides. Biosensors & Bioelectronics 16. 225-230. 2001. CALDWELL, S. et al. Detoxification of Organophostphate Pesticides Using a Nylon Based Immobilized Phosphotriesterase From Pseudomonas Diminuta. Applied Biochemistry & Biotechnology 31. 59-730. 1991. EJEUNE, K. et al. Biocatalytic nerve agent detoxification in fire fighting foams. Biotechnology & Bioéngineering 62(6), 659-665. 1999. LEJEUNE, K. et al. Nerve agents degraded by enzymatic foams. Nature 395, 6697. 27-28. 1998. **01060**9 SHERIDAN SWOPE, Ph.D. **DATE CONSIDERED: EXAMINER:**

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Disclosure Statements 13 **GROUP: 1645** APPLICANT: McDaniel FILING DATE: September 4, 2003 (Use several sheets if necessary) S. PATENT DOCUMENTS FILING DATE IF DOCUMENT NUMBER CLASS SUB REF. DATE NAME EXAM. APPROPRIATE **CLASS** DES. INITIALS OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) KOMIVES, C. et al. Degradation of pesticides in a continuous-flow two-phase microemulsion reactor. Biotechnology 10, 340-343. 1994. PEI. L. et al. Encapsulation of Phosphotriesterase Within Murine Erythrocytes. Toxicology and Applied Pharmacology 124, 296-301. 1994. PETRIKOVICS, I. et al. Antagonism of paraoxon intoxication by recombinant phosphotriesterase encapsulated within sterically stabilized liposomes. Toxicology & Applied Pharmacology 156, 56-63. YANG, F. et al. Nonaqueous biocatalytic degradation of a nerve gas mimic. Biotechnology 11, 471-474. 1995. CALDWELL, S. et al. Detoxicification of Organophosphate Pesticides Using an Immobilized Phosphotriesterase from Pseudomonas diminuta. Biotechnology and Bioegineering 37,103-109. 1991. ANDREOPOULOS, F. et al. Photoimmobilization of organophosphorus hydrolase within a PEG-based hydrogel. Biotechnology Bioengineering. 65(5), 579-588. 1999. LEI, C. Entrapping Enzyme in a Fuctionalized Nanoporous Support." J. American Chemical Society, 124. 11242-11243. **2002**. CHENG, T. et al. . Alteromonas prolidase for organophosphorus G-agent decontamination. Chemico-Biological Interactions 119-120, 455-462, 1999. MCGUINN, W. et al. The Encapsulation of Squid Diisopropylphosphorofluoridate-Hydrolizing Enzyme within Mouse Erythrocytes. Fundamental and Applied Toxicology 21:38-43, 1993. HOSKIN, C. et al. Hydrolysis of Nerve Gas by Squid-Type Diisopropyl Phosphorofluoridate Hydrolyzing Enzyme on Agarose Resin". Science, Vol. 215. 1255-1257. 1982. DREVON, G. et al. Irreversible Immobilization of Diisopropylfluorophosphatase in Polyurethane Polymers Biomacromolecules 1:571-576, 2000. がREVON, G. et al. Thermoinactivation of Diisopropylfluorophosphatase Containing Polyurethane Polymers. Biomacromolecules 2:664-671, 2001. DUMAS, D. et al. Purification and Properties of the Phosphotriesterase from Pseudomonas diminuta, 1-28. DUMAS, D. et al. Inactivation of organophosphorus nerve agents by the phosphotriesterase from pseudomonas diminuta, 1-14. MCDANIEL, C. et al. Cloning and sequencing of a plasmid-borne gene (opd) encoding a phosphotriesterase. J. of Bacteriology. 170, 5. 2306-2311. 1998. LEWIS, V. et al. Mechanism and stereochemical course at phosphorus of the reaction catalyzed by a bacterial phosphotriesterease, Biochemistry, 27, 1591-1597, 1988. RICHINS, R. et al. Expression, immobilization, and enzymatic characterization of cellulose-binding domain-organophosphorus hydrolase fusion enzymes. Biotechnology & Bioengineering, 69(6). 591-596, 2000. SHERIDAN SWOPE, Ph.D. n10606 PATENT EXAMINER DATE CONSIDERED: **EXAMINER:**

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\\5		PETRIKOVICS, I. et al. In vitro studies on sterically stabilized liposomes (SL) as enzyme carriers in organophosphorus (OP) antagonism. <i>Drug Delivery</i> 7, 83-89, 2000.								
\$ 6			liposomes encapsulating org			d androlase				
- 34	ASTM D 5589-97. Standard test method for determining the resistance of paint films and related coatings to algal defacement. ASTM International.									
18	ASTM D 5590 94. Standard test method for determining the resistance of paint films and related coatings to fungal defacement by accelerated four-week agar plate assay. ASTM International.									
9	ASTM D 3623 – 78a. Standard test method for testing antifouling panels in shallow submergence. ASTM International									
10	ASTM D 4610-98. Standa algal) growth on paint and		etermining the presence of an gs. ASTM International.	d remov	ing microbia	al (fungal or				
11	ASTM D 4938-89. Standard test method for erosion testing of antifouling paints using high velocity water. ASTM International					h velocity				
12	ASTM D 4939-89. Standa fluid shear forces in natur	ard teer method ral seawater. A	I for subjecting marine antifou STM International.	ling coat	ting to biofo	uling and				
13	ASTM D 5108-90. Standa sea water. ASTM Interna		for organotin release rates o	f antifou	ling coating	s system in				
14	ASTM D 5479-94. Standa immersed. ASTM Interna		testing biofouling resistance	of marine	e coatings p	partially				
15	ASTM D 5618-94. Standa ASTM International.	ard test method	for measurement of barnack	e adhesi	on strength	in shear.				
16	ASTM D 912-81. Standard specification for cuprous oxide for use in antifouling paints. ASTM International.									
17	ASTM D 964-65. Standard Specification for copper powder use in antifouling paints. ASTM International.					М				
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)									
	1	ASTM D 2574-97. Standard test method for resistance of emulsion paints in the container to attack by microorganisms. ASTM International.							
/	2	ASTM D 3274- 95. Standard design method for evaluating degree of surface disfigurement of paint films by microbial (fungal phalgal) growth or soil and dirt accumulation. ASTM International.							
	3	ASTM D 3273-94. Standard test method for resistance to growth of mold on the surface of interior coatings in an environmental chamber. ASTM International.							
	4	ASTM D 3456-96. Standard practice for determining by exterior exposure tests the susceptibility of paint films to microbiological attack. ASTM International.							

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